

**Risk Reduction and Environmental Stewardship (RRES)  
Environmental Characterization and Remediation Group (ECR)**

**Personal Computer Maintenance Hazard Control Plan**

**HCP Number: HCP-3, Rev. 2.0**

**HCP Title:** Personal Computer Maintenance

RISK*	
Initial Risk: <b>Low</b>	Residual Risk: <b>Minimal</b>

- Risk determinations from LIR 300-00-01 Risk Determination Matrix; see p.6 of this HCP.

**Consultation**

*(When initial risk is medium, consultation with independent peer(s) or RRES-ECR Subject Matter Expert(s) is required)*

☒ Not Required      ☐ Required

**Concurrence**

*(When initial risk is high, concurrence of independent Peer(s) is required ) and RRES-ECR Subject Matter Experts*

☒ Not Required      ☐ Required

\_\_\_\_\_  
**Name** (RRES-ECR Subject Matter Expert)

\_\_\_\_\_  
**Signature** (as required)

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Name** (Independent Peer)

\_\_\_\_\_  
**Signature** (as required)

\_\_\_\_\_  
**Date**

**Line Management Review (RRES-ECR)**

Alison M. Dorries

\_\_\_\_\_  
**Name** (Acting Group Leader)

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

**Revision History**

Document Number	Issue Date	Action	Description
HCP-3, Rev. 2	November 2003	Revision	Revised group information.

# PERSONAL COMPUTER MAINTENANCE

**SCOPE:** This Hazard Control Plan (HCP) covers activities associated with installation, maintenance, and repair of computers and related peripheral equipment by RRES-ECR computer support staff for RRES-ECR employees located throughout the Laboratory. Aspects of work addressed include:

- physical set-up and movement of computer systems and related peripherals, and maintenance and repair of computer systems and related peripherals.

**NOTE: *THIS HCP DOES NOT COVER THE MAINTENANCE OR INSTALLATION OF PERSONAL COMPUTER INTERNAL POWER SUPPLIES.***

## DESCRIPTION OF OPERATION:

**Computer systems and peripherals installation:** RRES-ECR computer support team members may install both computers and peripherals in various personnel work areas. Work may include, but is not limited to:

- configuring the computer workspace in a work area
- connecting the computer and/or Uninterruptible Power Supply (UPS) peripheral to either a surge-protected “computer power strip” or directly to electrical service located on either a permanent wall or a cubicle wall
- connecting the computer to other peripherals and to the network
- installing and configuring software packages on the computer

**Computer systems and peripherals maintenance:** RRES-ECR computer support team members may perform a variety of computer maintenance activities, may include, but is not limited to:

- random access memory (RAM) installation and replacement
- video and cache memory installation and replacement
- central processing unit (CPU) installation and replacement
- peripheral card installation and replacement
- internal preventive maintenance cleaning
- hard drive, floppy drive, and CD-ROM drive installation and replacement
- printer toner cartridge installation and replacement
- printer paper jam clearing
- printer memory and special option card installation and replacement
- printer internal preventive maintenance cleaning

**MATERIAL AND EQUIPMENT:** Equipment that may be used in computer maintenance and repair activities includes, but is not limited to:

- various hand-actuated screw, hex, and torx drivers
- safety glasses

**LANL AND REGULATORY REQUIREMENTS:** N/A

**FACILITY SPECIFIC REQUIREMENTS:** N/A

**EMERGENCY ACTIONS:**

Minor cuts and abrasions: Send affected individual to Occupational Medicine (HSR-2).

More serious worker injuries or exposures (e.g., serious bleeding, fractures, back injuries, eye injuries, burns, electric shock, etc.): Should an emergency occur, a responsible person shall call 911 for emergency assistance. As soon as the situation is stabilized, the direct supervisor and facility representative shall be notified. A written report shall be filed within 24 hours. In the case of electrical shock and an energized circuit, clear the area of all other personnel, identify the circuit, and trip the circuit breaker if possible.

**WASTE GENERATION:** There are no foreseeable impacts to the environment other than non-recyclable computer, printer, and peripheral packaging materials and consumables that are disposed of in the trash and eventually in the county landfill.

Activity	Hazard	Control
Accessing computers or peripherals	<ul style="list-style-type: none"> <li>• Electric shock</li> <li>• Burn</li> <li>• Cuts, punctures, or pinches</li> <li>• Animal bites</li> <li>• Exposure to Hanta Virus</li> </ul>	<ul style="list-style-type: none"> <li>• Before beginning work turn off all computers, printers, and any related peripherals</li> <li>• Before beginning work disconnect the power cords of all computers, printers, and any related peripherals from the electrical outlets</li> <li>• Before beginning work inspect the equipment and cords for signs of damage</li> <li>• Before beginning work identify sharp edges or connectors</li> <li>• Before beginning work identify hinged parts</li> <li>• Before beginning work identify potentially hot parts</li> <li>• Use appropriate ladders and footstools to access items located above shoulder level</li> <li>• When rodent droppings or nests are encountered leave the area and notify the responsible laboratory contact</li> <li>• When rodents, arachnids, or snakes are encountered leave the area and notify the responsible laboratory contact</li> </ul>
Lifting/Moving	<ul style="list-style-type: none"> <li>• Strains and injuries from lifting computer or computer peripheral equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Review videotape on proper lifting techniques and back injury prevention</li> <li>• Use proper lifting techniques: <ul style="list-style-type: none"> <li>– Use good judgement when gauging the weight you can lift, and stay within your limits. Do not lift bulky materials or those weighing more than 50 pounds without someone's assistance or the use of a mechanical lifting device. Do not twist the torso while lifting.</li> <li>– Space your feet apart for good balance, and position yourself close to the object you are lifting.</li> <li>– Keep your spine straight as you squat or kneel next to the object you are lifting.</li> <li>– Flex your legs as you lift, using them to do most of the work, and keep the objects close to your body.</li> </ul> </li> <li>• Use appropriate ladders and footstools to access items located above shoulder level</li> </ul>
Performing installations and	<ul style="list-style-type: none"> <li>• Electrical shock</li> <li>• Cuts, punctures, or pinches</li> </ul>	<ul style="list-style-type: none"> <li>• Wear safety glasses with side shields at all times</li> <li>• Before beginning work identify sharp edges or</li> </ul>

Activity	Hazard	Control
maintenance	<ul style="list-style-type: none"> <li>• Foreign particles in the eye</li> <li>• Burns</li> </ul>	<p>connectors</p> <ul style="list-style-type: none"> <li>• Before beginning work identify hinged parts</li> <li>• Before beginning work identify potentially hot parts</li> <li>• If unfamiliar with the equipment, workers are required to read documentation for the computer/peripheral <b>before</b> beginning work.</li> <li>• Workers are required to turn off all computers, printers, and any related peripherals <b>before</b> beginning work.</li> <li>• Workers are required to disconnect the power cords of computers, printers, or other peripherals from the electrical outlets <b>before</b> beginning work.</li> <li>• Whenever possible, workers are required to install computers, printers, and any related peripherals in locations where the electrical connections are easily accessible and in plain view during equipment installation/servicing.</li> <li>• Whenever possible, workers are required to separate power cords from other types of cabling when bundling/arranging cords.</li> <li>• Whenever possible, workers are required to route power cords <b>above</b> other cables in computer, printer, and related peripheral installations.</li> </ul>

## RISK DETERMINATION MATRIX

	Likelihood				
Severity	<i>Frequent</i> Usual occurrence to likely occurrence, reasonably expected	<i>Probable</i> Likely occurrence to irregular occurrence, infrequent	<i>Occasional</i> Irregular occurrence, infrequent to slight chance of occurrence	<i>Improbable</i> Slight chance of occurrence to highly unlikely occurrence	<i>Remote</i> Highly unlikely occurrence to extremely unlikely occurrence
<i>Catastrophic</i> Death, severe injury/occupational illness, severe environmental harm or liability, or severe property damage	<b>HIGH</b>	<b>HIGH</b>	<b>HIGH</b>	<b>MEDIUM</b>	<b>LOW</b>
<i>Critical</i> Major injury/chronic impairment or occupational illness, major environmental harm or liability, or major property damage	<b>HIGH</b>	<b>HIGH</b>	<b>MEDIUM</b>	<b>LOW</b>	<b>MINIMAL</b>
<i>Moderate</i> Minor injury/temporary impairment or occupational illness, minor environmental harm or liability, or minor property damage	<b>HIGH</b>	<b>MEDIUM</b>	<b>Initial</b>  <b>LOW</b>	<b>Residual</b>  <b>MINIMAL</b>	<b>MINIMAL</b>
<i>Negligible</i> Less-than-minor injury or occupational illness, less-than-minor environmental harm or liability, or less-than-minor property damage	<b>LOW</b>	<b>MINIMAL</b>	<b>MINIMAL</b>	<b>MINIMAL</b>	<b>MINIMAL</b>

[Using a token card, click here to record "self-study" training to this procedure.](#)

If you do not possess a token card or encounter problems, contact the RRES-ECR training specialist.